



FROM THE NEW EDITOR

Dear Reader, welcome to the 23rd edition of the FFEUC Aust newsletter.

As usual with all our newsletters we aim to bring you the greatest amount of really useful information in the shortest number of pages, in order to convey these ideas with confidence & conviction it takes a disciplined skill; some say an 'art'.

Though to be so discerning takes courage and effort as an 'artist' meaning no one understands me, this issue has once again been reduced to the very essence of all that is good and useful in the FF world,

*All the usual features include; notes from the chair, **NEWS & EVENTS**, Training information, Fieldbus Forums, Hot off the wire, Ask the Guru and more.*

Hope you enjoy the newsletter, don't forget to send your questions, stories, complaints to, "ASK the Guru"

Dave Edge , FFEUC W.A.Editor.

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FROM THE CHAIR

Oh well we are already well into another year, Foundation fieldbus continues to become the fieldbus of choice for many and believe it or not users are coming back with some positive responses when they have taken it on board to train their personnel, use competent advisors and ensure that this includes design, installation, commissioning and maintenance groups. Miss any of these at your peril!

I have heard of projects becoming unstuck when using third party contractors who have no idea about the technology and thus go back to the old, tried and trusted analogue methodology with fieldbus. This does not work and leads to cost overruns, poor performance and ongoing problems with the technology getting poor press. Of course the project management team will protect themselves and take no blame, putting out the response..."fieldbus does not work".

Actually fieldbus is not hard, it is however demonstrably different to other technologies though! When you have the right-people, products and support, wiring, training, tools, use competent third party advisors for at least the first project (why make the same mistakes as others when there are experts out there who can help you at all stages of the project) you are taking the right steps to success. Really it boils down to having good management both at the corporate and project level. My own advice would be if you are not prepared to put in the time, effort and commitment for the first project don't bother as much heartache will result.

Here in WA it is heartening to see many of the larger greenfields projects taking up Foundation Fieldbus, Woodside with Angel, Otway, Enfield, BHP with Ravensthorpe and Worsley Aluminium with their expansion. Also we have the installed base of CSBP, Wesfarmers, Stag and HiSmelt. Australia wide my understanding is that suppliers are finding that new projects are tending to specify fieldbus technology. Thus we are getting "runs on the board" and expertise is gaining momentum which is great news.

As some of you know, at the AGM last year the FFEUC-Aus Committee awarded me a \$500 holiday accommodation voucher as recognition of my efforts as chair. Whilst I was "humbled" by the gesture and support of the committee I

declined it because I feel that FFEUC money should be spent on FFEUC members and hardware for the ongoing FF technology promotion and training.

Talking about training Allen Tighe has been doing a sterling job, providing both the SAIT essentials and our own configuration courses. We are about to put out a request for equipment donations so that we can fabricate a further two training kits, making 5 in total.

Also I have been having discussions with Challenger TAFE who are looking at setting up an instrumentation Cert IV course at their Fremantle facility. They are very keen on having Foundation Fieldbus as a primary focus and we will be working hard to assist them in any way that we can.

Our almost monthly technical program for this year (detailed later in this newsletter) will start to show that we are a true "End User Council" in that our intent is to provide site visits and technical speakers who have some real experiences and advice on the subject. My own challenge is to research the differences between HART and Foundation Fieldbus as this is a subject on which I receive many queries. I also have the responsibility to provide a white paper to the End User Advisory Council on the subject as well. We intend also to have meetings on how to specify a fieldbus project, fieldbus tools, Fieldbus in Ex areas and much more.

This month we will be kicking off our Jump Aboard 2006 subcommittee again to discuss our way forward this year. I am keen on getting some real end user experiences, especially from some of the larger projects.

Not much news on the Eastern States front except that the Fieldbus Networks Users Group has been set up and we are helping them establish themselves. This group is independent from us and will cover several Fieldbuses.

As you can see we are really busy and additional committee members are always welcome to reduce the load, should you have any interest in joining our dynamic group please let me know.

We hope that this newsletter will become a monthly feature in your "InBox" now that we have an editorial committee in Brad Tindall and Dave Edge preparing it, thanks guys!

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NEWS & EVENTS:

TRAINING:

The Foundation Fieldbus (FF) End User Council Aus Inc in conjunction with the Southern Alberta Institute of Technology (SAIT) is offering FF Training courses this February, March & April 2006 in Australia.

Certified **Fieldbus Foundation** Training Courses

Essentials ([1-day theory](#))

- [Melbourne - Tuesday 4th Apr](#)

Configuration ([1-day practical](#)) Essentials is a pre-requisite

- [Perth - Tuesday 14th Mar](#)
- [Melbourne - Thursday 6th Apr](#)

These courses together with the instructors are fully certified by SAIT and the Fieldbus Foundation in Austin TX.

For more information please see the link below :-

<http://www.fieldbus.org.au/training/>

Book early - seats are limited.



P+F launches Website for FieldConnex™ fieldbus solutions

Pepperl+Fuchs has introduced *FieldConnex.info*—a newly redesigned Website dedicated to fieldbus solutions, products, and technology. Site offers simple, easy navigation and educational resource materials, including free downloadable literature and educational white papers.

For more information see http://www.pepperl-fuchs.com/pa/interbtob/default_e.html

2006 General Assembly- Shanghai

The Fieldbus Foundation will hold its annual General Assembly in Shanghai, China, this year. The 2006 event, scheduled for Feb. 28 to Mar. 1, will address the needs of the expanding FOUNDATION fieldbus market in China and Asia/Pacific, and will feature an end-user-oriented agenda that includes user case studies, technical training workshops, and tabletop exhibits. It will also include Fieldbus Foundation's annual business meeting.

The 2006 General Assembly will begin with a welcome reception the evening of February 28th. Attendees will have the opportunity to discuss their ideas for implementing FOUNDATION fieldbus with industry professionals and technology experts.

The General Assembly program will feature workshops for process control vendors, end users, and contractors, focusing on key issues of plant-wide integration with FOUNDATION fieldbus. Attendees will receive information about fieldbus installations and advancements and user case studies demonstrating the benefits of the technology. Throughout the event, member companies will display FOUNDATION fieldbus field devices and host systems in tabletop exhibits.

For the full General Assembly agenda and more information visit <http://www.fieldbus.org>

Fieldbus Foundation Receives TÜV Protocol Type Approval For Safety Instrumented Systems Specifications

[Development team achieves goal of meeting requirements for IEC 61508 SIL 3](#)

AUSTIN, Texas, January 4, 2006 — The Fieldbus Foundation today announced that TÜV Anlagentechnik GmbH, Automation, Software and Information Technology, a global, independent and accredited testing agency, has granted Protocol Type Approval for the Fieldbus Foundation Safety Instrumented Systems specifications. The specifications are in compliance with International Electrotechnical Commission (IEC) 61508 standard (functional safety of electrical/electronic/programmable electronic safety-related systems) requirements up to, and including, Safety Integrity Level 3 (SIL 3).

With the TÜV Protocol Type Approval, FOUNDATION fieldbus™ technology has been extended to provide a comprehensive solution for Safety Instrumented Systems in a wide range of industrial plant applications. The specifications enable manufacturers to build FOUNDATION fieldbus devices in compliance with IEC 61508. Third-party test agencies such as TÜV will certify that these devices are suitable for use in safety instrumented systems. End users will be able to choose devices meeting the requirements of IEC 61511 (functional safety: safety instrumented systems for the process industry sector) from multiple suppliers, instead of being restricted to devices designed specifically for a proprietary safety system platform. IEC 61511 is also available as an ANSI/ISA Standard: ANSI/ISA-84.00.01-2004.

The Safety Instrumented System project was initiated by end users and approved by the Fieldbus Foundation's board of directors in October 2002. Companies participating in the project include: ABB, BP, Chevron, Cooper Crouse-Hinds GmbH, DuPont, Emerson Process Management, E+H Process Solutions, ExxonMobil, Fieldbus Diagnostics, Fieldbus Inc., Flowserve, HIMA, Hirshmann, Honeywell, ICE-Pros Inc., Invensys/Triconex, Magnetrol, Metso Automation, MTL, Relcom, R&M Industrieservice, Rockwell Automation, Rotork Control Systems, Saudi Aramco, Shell Global Solutions, Smar, Softing, TopWorx, TÜV, Tyco/Westlock and Yokogawa.

The development team achieved its first major milestone at the end of 2003 with TÜV approval of the overall system concept. The development team met with external experts at a meeting hosted by Shell Global Solutions in Amsterdam, The Netherlands, in March 2004 to review the initial specifications. Comments from this review were resolved and the management team developed the top-level project plan for laboratory validation testing.

During the lab test phase, conducted at the R&M Industrie service facility in Frankfurt, Germany, each prototype supplier independently implemented the foundation's safety instrumented systems specifications. In parallel, the test team separately developed test cases and prepared expected test results.

According to the Fieldbus Foundation's director of technology development, David A. Glanzer, extensive laboratory testing and application analysis has verified that the foundation's safety instrumented systems technology meets the needs of industrial end users, who regard these systems as critical to their overall plant operating strategy.

"TÜV Type Approval will help meet the growing worldwide demand for commercial, standards-based, safety instrumented system products incorporating FOUNDATION fieldbus technology," said Glanzer. "End users can now adopt the powerful diagnostics available with FOUNDATION fieldbus, and at the same time, maintain the protection in a SIL3 environment. No changes were required to the existing H1 protocol to add the safety instrumented systems protocol extensions, clearly indicating the value of the comprehensive, forward-thinking design of FOUNDATION technology."

Fieldbus Foundation Releases Updated Specifications

Specification Version 6.0 includes powerful new Device Description (DD) features

AUSTIN, Texas, Feb. 9, 2006 — The Fieldbus Foundation has announced that an updated version of its FOUNDATION fieldbus™ specifications is now available. The new specification defines features that enhance fieldbus functionality and provide additional incentives for automation equipment suppliers to get on the "Fast Track to Fieldbus."

New version of Device Description Developer toolkit released

The Fieldbus Foundation has released AT-400 Device Description Tokenizer Toolkit Version 5.0 and AT-401 Device Description Services Toolkit Version 5.0. The toolkits enable instrumentation manufacturers to read and generate Device Description (DD) files for distribution with a FOUNDATION fieldbus device, and use new Electronic Device Description Language (EDDL) technology extensions in their fieldbus product development projects.

Toolkits are delivered as a defined subset of the IEC 61804-2 "EDDL" standard.

DD Tokenizer Kit 5.0 supports enhanced EDDL language elements and includes the new DD Super Viewer that simplifies the device development process by providing access to the generated DD binary for testing and verification. DD Super Viewer supports direct rendering of new extensions, including enhanced dialogs, images, graphs, and charts.

Fieldbus Foundation's AT-401 *Device Description Services Toolkit Version 5.0* is a comprehensive source code library helps controls suppliers decode DD binaries and access DD information. It includes all FOUNDATION Fieldbus standard blocks and provides consistent presentation of data for all devices to make it easier to develop DD based applications.

AT-401 toolkit is compatible with DD binaries generated by the DD Tokenizer 4.x and 5.x. Compatibility with DD Tokenizer 4.x ensures continued support for the existing installed base of DDs while enabling support of the new language extensions in future devices. Forward and backward compatibility is ensured by EDDL's leadership role and commitment to existing DD technology's binaries generated by the DD Tokenizer 4.x and 5.x products.

Both toolkits are available to Fieldbus Foundation members and non-members.

For more information, contact the Fieldbus Foundation via e-mail at member.services@fieldbus.org, or visit <http://fieldbus.org>

TECHNICAL MEETINGS PROGRAM- PLEASE SCHEDULE IN YOUR DIARY.

(All Events will be held 5:00-7:00pm at the Emerald Hotel – Mount Street, Perth unless specifically advised)

15th MARCH

“Ex in Foundation Fieldbus” IS Circuit Design, Entity, FISCO and FNICO, Exd, High Power Trunk, Other options?
+
General Assembly Update

12th APRIL 2:00pm-4:00pm

CSBP site visit

10th MAY

Fieldbus Specification Approach

14th JUNE

Fieldbus Table Top – An Interactive Exhibition showing open connectivity

12th JULY

Tools for Foundation Fieldbus Configuration, Testing, Commissioning and Maintenance
+
FF Training – A demonstration

16th AUGUST

The TRUTH about HART and Fieldbus

13th SEPTEMBER (Times to be scheduled)

Jump Aboard 2006 “The Lessons Learned by End Users”
+
AGM

11th OCTOBER

Fieldbus Project Management

8th NOVEMBER

Foundation fieldbus – An end users perspective

CENTRE OF EXCELLENCE: (Editors note)

The Australian Centre for Energy and Process Training (ACEPT), a new facility being built in Henderson is generating a lot of discussion amongst industry and government alike. It is an opportunity to develop a world class training facility able to meet the mission of supporting and developing the people and industry of Western Australia and overseas. Thus it will be necessary to cover both legacy instrumentation and also adopt the most advanced automation technology available.

Designers must be mindful of their commitment to provide a quality hands on practical training environment, enabling students to gain a thorough understanding of the theory and application of technologies which are representative of regional industries. In addition they must ensure that not only should the facility deliver a sound platform for maintenance technicians and process operators of the future, but also provide system integration testing with other non real-time archival and maintenance systems. This will enable suppliers and industry alike to use, optimise and integrate digital control systems of the future and thus ensure the ongoing relevance and usage for the years to come.

The Foundation fieldbus End User Council Australia will assist in meeting this objective by working with ACEPT on an ongoing basis and have provided the FFCOE specification.

“ All men who have achieved great things have been great dreamers”.



LATEST INFORMATION VIA THE FFEUC-AUS WEBSITE

For the latest information on all FFEUC-Aus Inc activities and some great Foundation fieldbus technical data please visit our website <http://www.fieldbus.org.au>

Follow the link below for the latest EUC contacts page :-
<http://www.fieldbus.org.au/contacts/EUCAcmt.htm>

Look under Technical notes, review previous papers since 2001, discussion topics and links to IEAust, ICEweb & ICEpros, the IICA, ISA & the FFEUC, Check out the new training kits & course time tables. (Training)
Look at the events link and open up to a world of FF technology from major events in China USA, Singapore and around the globe.

Have a look at what they are doing in the rest of the world, click on the events link, download papers, key note addresses, challenges, practical experiences and the latest developments in FF technology.

(Editors tip)- If you're planning a holiday in the USA or Singapore why not attend a course and look carefully at the tax benefits.)



Did you know that **Fieldbus Forums** is a new online community for the exchange of fieldbus information?

This interface lets FOUNDATION fieldbus technology experts, end users, product suppliers, and others around the world interact in an open, web-based community—and it's available to members and non-members. **Fieldbus Forums** makes it easy for those with an interest in fieldbus to find answers to their questions about the technology, and learn from the experiences of their counterparts across the globe.

To register for **Fieldbus Forums** log on to <http://www.fieldbus.org/EndUserSupport/UserForum/> It's free!

FOUNDATION™ Fieldbus Training in Australia

The SAIT essentials 1 day training is still available, please contact <mailto:alanrt@ieee.org> for further details.

Fieldbus Intermediate Design & Configuration course (HSE / OPC / HMI) being prepared for Q3 this year.
The provision of "hands on" training kits have proved invaluable at a basic configuration level, more kits are being built in 2006, **Vendors of FF equipment are requested to contact the End Users Council should they wish to donate equipment for these kits.**

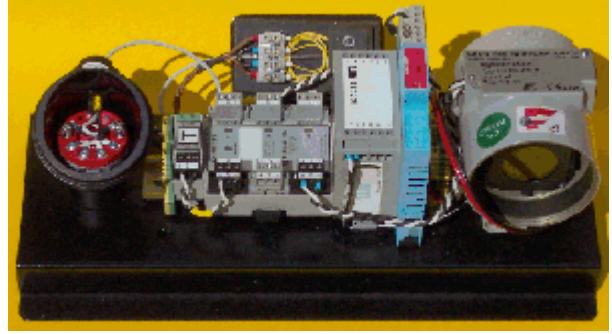
NEW!

The *Configuration* training course is aimed at personnel who have completed the "Essentials" course or some equivalent pre-requisite basic course in Foundation Fieldbus (FF). Personnel who need to attend are staff who would have any technical involvement with the Engineering and / or Maintenance of a FF installation.

Included with the course is a full-colour comprehensive instruction manual, but it is suggested that attendees bring their previous course manual as a basic FF reference.
The one-day workshop covers many practical aspects of a Fieldbus installation, including four hands-on sessions with a PC workstation, a typical FF certified Host & process control instrumentation.

The course practical content contains sections on : -

- **Constructing a typical FF H1 segment**
- **Network setup and instrument checkout**
- **PID loop build & schedule downloading**
- **H1 packet analysis via a software package**



The training is certified by the FF End User Council Aus Inc and was created by the Council in response to end user requests for a hands-on experience. This *Configuration* training is a pre-requisite to the higher level of *HSE/OPC Integration* training which is also planned by the FF-EUC Aus Inc. Instructors are certified by both the Foundation and the FF-EUC Aus Inc to present the training courses.

For Course Registration or more details on custom onsite courses call Allen on (041) 295-5656 or (08) 9243-0161
email: <mailto:training@fieldbus.org.au>
<http://www.fieldbus.org.au>

Editors Notes: Two new training systems are being specified and will address; Fieldbus Intermediate Design & Configuration course (HSE / OPC / HMI)

If you experience difficulties in configuring your registered fieldbus device, you can download the Device Description and Capability Files for Registered Devices, visit: Registered Products Page

<http://www.fieldbus.org/ProductsAndServices/RegisteredProducts/> for specific information regarding your device.

DID YOU KNOW...the Foundation's Technical Documents are available online? To view or download visit <http://www.fieldbus.org/About/FoundationTech/Resources/>



Search our
Registered
Products.

Loads of Free Fieldbus papers and Information:

ICEweb has a huge amount of FF and other fieldbus technical papers on its Fieldbus page, see <http://www.iceweb.com.au/Instrument/fieldbus.htm>

User's corner:

End user corner: Post your story:

The Fieldbus Foundation's new "End User Corner" forum is filling up with success stories—proof of the market's growing interest in, and demand for, FOUNDATION fieldbus. This forum presents the knowledge of experienced fieldbus end users and provides a way to share the solutions only FOUNDATION technology delivers.

To post your own fieldbus installation success story go to: <http://forums.fieldbus.org/forumdisplay.php?f=94>

Editors Note: "Failure is unimportant. It takes courage to make a fool of yourself"

Learn fieldbus and Ethernet at your own pace: <http://www.isa.org/fieldbuses>

Learn OPC and automation software at your own pace: <http://www.isa.org/autosoftware>

White Papers

FOUNDATION™ Fieldbus H1 + HSE FFB Integrated Architecture Demonstration - <http://www.fieldbus.org/pdf/ISPwhitepaper.pdf>

Application Guides



31.25 kbit/s Intrinsic Safe Systems
<http://www.fieldbus.org/pdf/ag-163s.pdf>

Wiring & Installation 31.25 kbit/s, Voltage Mode, Wire Medium
<http://www.fieldbus.org/pdf/ag-140s.pdf>

Function Block Capabilities in Hybrid/Batch Applications
<http://www.fieldbus.org/pdf/AG-170.pdf>

The ARC report
<http://www.fieldbus.org/pdf/ARCInsightReport.pdf>

GA information
<http://www.fieldbus.org/news/articles/articles/ga04.pdf>

TIPS FROM THE GURU 3:

1. A Segment checker is a design tool for fieldbus segments and must support all host systems, fieldbus power supplies/ conditioners and wiring interfaces (fieldbarriers, segment protectors, junction boxes) plus field devices. The Segment checker helps you graphically to design a fieldbus network; additionally the segment checker calculates all voltage & current values and performs checks like short circuit or proper termination. In most cases the segment checker generates a report consisting of the segment drawing and the tag list.
2. Segment Protector- Up to 1A of Current allows the designer to maximize the number of field instruments on the bus, In order to avoid a bus- breakdown in the case of an instrument failure, the field junction box is replaced by a segment protector that provides individual short circuit protection for each instrument.

PLEASE NOTE: If you know someone, who might be interested in receiving *Fieldbus Facts*, via e-mail please send them this link: <http://www.manufacturing.net/ctl/subscribe.asp>

All for Now Folks- Trust you found something worthy. ED **Please send articles and items suitable for publication to <mailto:dedge@samsoncontrols.com.au>**

Whilst every effort is made to ensure technical accuracy of the information in this newsletter, the Fieldbus Foundation End Users Council Australia accepts no liability for any loss or damage caused by error or omission from the data supplied. Users should make and rely on their own independent inquiries. By accessing the newsletter users accept this condition.

Should you note any error/omission or an article offends please do not ignore it, contact- <mailto:jim@fieldbus.org.au> and we will review, rectify and remove as necessary.

Finally should you wish to be removed from the mailing list, please send an email to <mailto:jim@fieldbus.org.au> with the subject header "PLEASE REMOVE FROM FFEUC EMAIL"

